

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P16747WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IB 03/01155	International filing date (day/month/year) 28.03.2003	Priority date (day/month/year) 28.03.2003
International Patent Classification (IPC) or both national classification and IPC H04M1/73		
Applicant TELEFONAKTIEBOLAGET LM ERICSSON (PUBL) et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.
 - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
 These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:
 - I Basis of the opinion
 - II Priority
 - III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV Lack of unity of invention
 - V Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI Certain documents cited
 - VII Certain defects in the international application
 - VIII Certain observations on the international application

Date of submission of the demand 28.10.2004	Date of completion of this report 30.06.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Ohanovici, Z-C Telephone No. +49 89 2399-8035



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IB 03/01155

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-18 as originally filed

Claims, Numbers

1-2, 4-15, 17-26 filed with telefax on 15.06.2005

Drawings, Sheets

1/6-6/6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY
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International application No. PCT/IB 03/01155

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-2,4-15,17-26
	No: Claims	none
Inventive step (IS)	Yes: Claims	1-2,4-15,17-26
	No: Claims	none
Industrial applicability (IA)	Yes: Claims	1-2,4-15,17-26
	No: Claims	none

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IB 03/01155

To section V:

The invention relates to a method (claim 1) and apparatus (claim 14) for managing traffic in a network involving a communication device with a limited power.

The document GB 2 366 134 A discloses a portable battery driven communication device which compares estimated battery operation time with the estimated download time and allows the data transfer when the battery operation time exceeds the download time. EP 1 032 230 A discloses a wireless device capable of downloading music data from a download site. The download is interrupted when the battery voltage is lower than a threshold value and it the download is resumed automatically when the battery is recharged.

According to the claim 1 of the present application a controller receives an indication from a communication device according to the power level calculations and redirects all or portion of the received data to a predetermined address.

This gives more flexibility to the system since the controller is not in the communication device therefore it is able to redirect the received data to an other address.

Therefore, the invention as set out in claim 1 meets the requirements of Articles 33(2) to (4) PCT

Apparatus claim 14 corresponds to claim 1 in terms of apparatus features.

Dependent claims 2, 4 to 13 and 15, 17 to 26 relate to preferred embodiments of the invention. Therefore, claims 2 to 13 and 15 to 26 likewise meet the requirement of Articles 33(2) to (4) PCT.

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WHAT IS CLAIMED IS:

1. A method for managing traffic in a network, involving a communication device with a limited power supply, characterized by:

5 determining a present level of available power in said power supply for transmitting and receiving functions of said communication device;

communicating said power level to a controller;

determining a present power drain rate of said power source;

detecting a need for data transfer associated with said communication device,

10 wherein said data transfer is one of an incoming call to said communication device and a request for transmission from said communication device;

determining a quantity of data relating to said data transfer;

calculating whether said power level is sufficient to effect the transfer of said data;

and

15 signaling said controller to effect said data transfer according to said power level calculations, wherein said controller being operable for one of

receiving all of said data,

redirecting all of said data to a predetermined location, and

receiving a portion of said data and directing the remainder of said data to a

20 predetermined address.

2. The method of Claim 1, further characterized by:

storing initial parameters for said power supply of said communication device and periodically updating said power supply parameters, wherein said parameters include:

25 a drain rate for each communication service available to said communication device; and

an initial power source level upon connection to the network.

3. (Cancelled)

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4 The method of Claim 1 wherein said communication device is a battery operated
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5. The method of Claim 1, wherein said network is a non-wireless network.
6. The method of Claim 1, wherein said communication device is a wireless mobile terminal and said network is a wireless network.
7. The method of Claim 6, wherein said traffic is voice traffic and a voice call is begun on said mobile terminal at a first quality of service level according to an initially determined power level and power drain rate of said mobile terminal battery, and said voice call is continued at a second quality of service level according to a subsequently determined power level and power drain rate of said mobile terminal battery.
8. The method of Claim 6, wherein a video message is presented for transfer and the audio portion of the message is transferred but the video portion is redirected to a predetermined address and a message is sent to inform the recipient of said audio portion of the location of said video portion.
9. The method of Claim 1, wherein said data comprises a Multimedia Messaging Service (MMS) message.
- 20 10. The method of Claim 1, wherein said data comprises a video message.
11. The method of Claim 1, wherein said communication device is a wireless modem.
- 25 12. The method of Claim 1, wherein said communication device is a cordless phone system and said network is a public switched telephone network (PSTN).
13. The method of Claim 1, wherein said communication device is a personal digital assistant and connects to a PSTN by wirelessly connecting to a computer connected to said
- 30 PSTN

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14. An apparatus for managing traffic in a network involving a communication device with a limited power supply, characterized by:

a transceiver for receiving and transmitting messages;

5 a controller for monitoring a present power level of said power supply and a calculated power drain rate of said communication device said controller being operable to one of:

receiving all of said data,

redirecting all of said data to a predetermined location, and receiving a portion of said data and directing the remainder of said data to a predetermined address based on said power supply measurements;

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means coupled to said power supply for determining said power drain rate of said communication device; and

15 signal means for signaling said communication device to one of receive and transmit messages according to said present power level and said drain rate.

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16. The apparatus of Claim 14, further characterized by:

a database for storing initial parameters for said power supply of said communication device and periodically updating said power supply parameters, wherein said parameters include:

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a drain rate for each communication service available to said communication device; and

an initial power source level upon connection to the network.

25 16. (Canceled)

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17. The apparatus of Claim 14, wherein said communication device is a battery operated remote sensor and said network is a wireless network.

30 18. The apparatus of Claim 17, wherein said network is a non-wireless network.

19. The apparatus of Claim 14, wherein said communication device is a wireless
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20. The apparatus of Claim 19, wherein said traffic is voice traffic and a voice call is begun by said wireless mobile terminal at a first quality of service level according to an initially determined power level and power drain rate of a battery for said wireless terminal and said voice call is continued at a second quality of service level according to a subsequently determined power level and power drain rate of said battery.

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21. The apparatus of Claim 14, wherein a video message is presented for transfer and the audio portion of the message is transferred but the video portion is redirected to a predetermined address and a message is sent to inform the recipient of said audio the location of said video portion.

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22. The apparatus of Claim 14 wherein said communication device is a wireless modem.

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23. The apparatus of Claim 14, wherein said communication device is a cordless phone system and said network is a public switched telephone network (PSTN).

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24. The apparatus of Claim 14, wherein said communication device is a personal digital assistant and connects to a PSTN by wirelessly connecting to a computer connected to said PSTN

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25. The apparatus of Claim 14, wherein said means for determining said power drain rate further comprises periodically determining said power drain rate associated with said communication device when said communication device changes location during data transmission.

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26. The method of Claim 1, wherein the step of determining a present power drain rate of said power source further comprises the step of periodically determining said drain rate when said communication device changes location during data transmission.

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Box No. VIII (ii) DECLARATION: ENTITLEMENT TO APPLY FOR AND BE GRANTED A PATENT

The declaration must conform to the standardized wording provided for in Section 212; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (ii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

In relation to this international application,

TELEFONAKTIEBOLAGET LM ERICSSON (publ) is entitled to apply for and be granted a patent by virtue of the following:

an assignment from

HAARTSEN, Jacobus Cornelis, Bruchterweg 81, NL-7772 BG, Hardenburg, THE NETHERLANDS

to TELEFONAKTIEBOLAGET LM ERICSSON (publ) dated 26 March 2003.

This declaration is made for the purposes of all designations.



This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".